Exhibit 2

Filed Under Seal

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

NETLIST, INC., *Plaintiff*, v. SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC., SAMSUNG SEMICONDUCTOR, INC., *Defendants*.	§ § § § § § § § § § §	CIVIL ACTION NO. 2:21-CV-00463-JRG **FILED UNDER SEAL**

MEMORANDUM OPINION AND ORDER
SUPPORTED BY FINDINGS OF FACT AND CONCLUSIONS OF LAW

A bench trial was held on May 30, 2023, wherein the Court heard evidence and argument on Defendants Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Semiconductor, Inc.'s (together, "Samsung") equitable defenses of estoppel, prosecution laches, and unclean hands. (Dkt. No. 535.) The Court has considered the totality of the evidence presented at the jury trial, the bench trial, and in the written record, including the post-trial submissions from the parties (Dkt. Nos. 509, 511, 518, 519, 525). The Court now issues this opinion concerning Samsung's equitable defenses supported by the following Findings of Fact ("FF") and Conclusions of Law ("CL") pursuant to Federal Rule of Civil Procedure 52(a)(1) and 52(c). In view thereof and as discussed herein, the Court rejects Samsung's arguments as to equitable estoppel, prosecution laches, and unclean hands and finds that such do not bar enforceability of Plaintiff Netlist, Inc's ("Netlist") asserted patents, U.S. Patent Nos. 11,016,918 (the "'918 Patent"), 11,232,054 (the "'054 Patent"), 10,949,339 (the "'339 Patent"). Specifically, the Court finds that

the ’918 and ’054 Patents are not unenforceable due to equitable estoppel, prosecution laches, and unclean hands. The Court finds that the ’339 Patent is not unenforceable due to unclean hands.

I. FINDINGS OF FACT

A. Procedural History

[FF 1] This is an action for patent infringement. On December 20, 2021, Netlist sued Samsung asserting the ’918 and ’339 Patents and U.S. Patent No. 10,860,506 (“the ’506 Patent”). (Dkt. 1.) On May 3, 2022, Netlist filed an Amended Complaint, adding infringement allegations based on U.S. Patent Nos. 11,232,054 (“the ’054 Patent”), 8,787,060 (“the ’060 Patent”), and 9,318,160 (“the ’160 Patent”). (Dkt. No. 23.) Netlist accused Samsung’s DDR4 LRDIMM memory products of infringing the ’339 and ’506 Patents, DDR5 memory products of infringing the ’918 and ’054 Patents, and HBM memory products of infringing the ’160 and ’060 Patents. Netlist did not present any assertions relating to the ’506 Patent at the jury trial. Samsung did not raise any equitable defenses relating to the ’060 and ’160 Patents. Therefore, the patents at issue for Samsung’s equitable defenses are the ’339, ’918, and ’054 Patents.

[FF 2] On April 21, 2023, the jury returned a verdict that Samsung willfully infringed at least one asserted claim of the ’339 Patent and Netlist should be awarded $33,150,000.00 for such infringement; Samsung willfully infringed at least one asserted claim among the ’918 and ’054 Patents and Netlist should be awarded $147,225,000.00 for such infringement; Samsung willfully infringed at least one asserted claim among the ’060 and ’160 Patents and Netlist should be awarded $122,775,000.00 for such infringement; and none of the asserted claims is invalid. (Dkt. No. 479.)

[FF 3] Samsung alleges that Netlist is estopped from asserting the ’918 and ’054 Patents based on Netlist’s failure to disclose them to the appropriate standards setting organization. (Dkt. No. 509 at 1–5.) Samsung also alleges that Netlist’s prosecution delay renders the ’918 and

'054 Patents unenforceable. (*Id.* at 5–7.) Samsung further alleges that Netlist's unclean hands bars its infringement claims as to the '339, '918, and '054 Patents. (*Id.* at 7–10.)

B. Equitable Estoppel

[FF 4] On December 30, 2020, Netlist filed U.S. Patent App. No. 17/138,766, which issued on May 25, 2021 as the asserted '918 Patent. (JTX0003 (U.S. Patent No. 11,016,918) at 1.)

[FF 5] On May 24, 2021, Netlist filed U.S. Patent App. No. 17/328,019, which issued on January 25, 2022 as the asserted '054 Patent. (JTX0004 (U.S. Patent No. 11,232,054) at 1.) The '054 Patent is a continuation of the '918 Patent. (*Id.*)

[FF 6] The asserted '918 and '054 Patents claim priority through a series of applications to an original non-provisional application, U.S. Patent App. No. 12/131,873, which was filed on June 2, 2008, and to a provisional application, U.S. Provisional Patent App. No. 60/941,586, which was filed on June 1, 2007. (*Id.* at 2.)

[FF 7] The Joint Electron Device Engineering Council ("JEDEC") is a standards setting organization ("SSO") that develops industry standards for dynamic random access memory ("DRAM"). (*See* Dkt. No. 537 (05/30/2023 Bench Trial Tr.) at 7:19–24 (Halbert).) Included among those standards are the DDR4, DDR5, and HBM DRAM standards at issue in this case. (*Id.* at 7:25–8:1 (Halbert).) JEDEC is organized into committees that work on various types of memory products, including the JC-40 committee responsible for developing logic devices used on DRAM dual in-line memory modules ("DIMMs"), the JC-42 committee responsible for developing DRAMs, and the JC-45 committee responsible for developing DIMMs. (*Id.* at 17:6–10 (Halbert).)

[FF 8] Netlist is a participating member of JEDEC. (*See id.* at 7:19–24 (Halbert), 62:15–63:1 (Milton); *see generally id.* at 24:6–31:19 (Martinez).) Netlist first joined JEDEC in

2001. (DTX-10 at 96–97.) Netlist has been a participating member of JEDEC in various capacities since that time. (*See* Dkt. No. 537 at 1–15, 53–58, 62–97.)

[FF 9] Over time, numerous individuals have represented and submitted materials to JEDEC on behalf of Netlist. Those individuals have included Mario Martinez. (*See* DTX-14 at 2; DTX-28 at 2). Mr. Martinez represented Netlist in the JC-40, JC42, and JC-45 committees at relevant times. (Dkt. No. 537 at 62:15–21 (Milton), 28:13–17 (Martinez).)

[FF 10] Netlist was restricted from participating in JEDEC during two periods of time. The first time occurred in 2011 when Netlist refused to license certain of its patents on RAND licensing terms to certain JEDEC committees. (Dkt. No. 537 at 15:25–17:5 (Halbert).) The second was from February 2015 through August 2018, when Netlist again refused to offer certain of its patents on RAND licensing terms. (*Id.* at 27:11-28:21 (Martinez); DTX-10 at 16.)

[FF 11] Netlist has been a participating member in JEDEC, including the JC-40, JC-42, and JC-45 committees, since returning to JEDEC in August 2018. (*See* DTX-10 at 1-16.)

[FF 12] Netlist was a participating member of JEDEC at the time of filing and prosecuting the applications that led to the asserted ’918 and ’054 Patents in this case. (*Id.*; Dkt. No. 537 at 82:24-83:6 (McAlexander).)

[FF 13] JEDEC policies are set out in the JEDEC Manual of Organization and Procedure, referred to as JEDEC Patent Policy, JM21. (*Id.* at 9:8-12 (Halbert); PX1067 (JM21U); DTX-02 (JM21S): DTX-08 (JM21T).) JM21 is periodically revised; however, the parties did not identify any differences between versions relevant to the issues in this case.

[FF 14] The JEDEC Manual of Organization and Procedure, JM21, contains a Patent Policy setting forth member companies’ duties to disclose Potentially Essential Patents as defined by JEDEC, and to offer Essential Patents as defined in JM21 on reasonable and non-discriminatory

("RAND") licensing terms. (DTX-02 (JM21S); DTX-08 (JM21T); *see also* Dkt. No. 537 at 9:17–10:5 (Halbert), 10:19–25 (Halbert), 24:6–24 (Martinez), 82:19–23 (McAlexander), 142:13–143:5 (Gillingham).)

[FF 15] Section 8.2.3 of JM21 establishes a duty of disclosure for potentially essential patents:

> **8.2.3 Disclosure of Potentially Essential Patents**
>
> At each committee meeting, the chairperson should call to the attention of all those present the requirements contained in the JEDEC Legal Guides and the obligation of all Representatives to inform the committee of any personal knowledge they have of any Potentially Essential Patents that are owned or controlled by that Committee Member and to call for the Disclosure of Potentially Essential Patents by Representatives. Annex A provides information to be displayed at the beginning of the committee meeting to satisfy the requirement. Additionally, all Representatives should be asked to read the statement attached to each JEDEC sign-in/attendance roster; see Annex A for patent policy application guidelines.
>
> All Committee Members must Disclose Potentially Essential Patents, known to their Representative(s) to be Potentially Essential Patents that are owned or controlled by that Committee Member to the personal knowledge of the Representatives. However, neither Committee Members nor Representatives shall have any obligation to conduct a search for Potentially Essential Patents.
>
> Disclosure of Potentially Essential Patents by a Representative or the Committee Member being represented shall be made as early as reasonably possible. The Disclosure of Potentially Essential Patents shall be in accordance with the definition of Disclosure of Potentially Essential Patents, see 8.2.1. Initial disclosure by a Committee Member or Representative may be made in a meeting of the committee or task group. The Representative is responsible for ensuring that such disclosure is properly recorded in the meeting minutes.
>
> The Representative or Committee Member shall document all known Potentially Essential Patents in either: a) License Assurance/Disclosure Forms, see Annex A.3, or b) Notice of Refusal to offer Licenses on RAND Terms forms, see Annex A.4. Such disclosures or notices of known Potentially Essential Patents

> shall be delivered to the JEDEC Legal Department within thirty (30) calendar days of Approval by the Committee in order to be effective.

(DTX-08 at 33-34; Dkt. No. 537 at 10:19–11:4 (Halbert), 11:24–13:5 (Halbert), 142:13–143:21 (Gillingham).)

[FF 16] The "Representative" is "an individual nominated by the member company to represent the member company on the committee." (Dkt. No. 537 at 150:25-151:3 (Gillingham); JM21 § 8.2.1 (PX1067 at 0032) (defining "Representative" as "An individual who represents a Committee Member.").)

[FF 17] A "Potentially Essential Patent" is "[a] Patent that is reasonably believed by a subject person to contain one or more Essential Patent Claims." (DTX-08 at 31; Dkt. No. 537 at 10:6–10.) The JM21 defines "Patents" to include "[a]ll classes or types of patents other than design patents (including, without limitation, originals, divisions, continuations, continuations-in-part, extensions or reissues), and applications for these classes or types of patents throughout the world." (DTX-08 at 31.) Thus, the disclosure obligation extends to not only issued patents, but also pending patent applications. (*Id.*) "Essential Patent Claims" are "[t]hose Patent claims the use of which would necessarily be infringed by the use, sale, offer for sale or other disposition of a portion of a product in order to be compliant with the required portions of a final approved JEDEC Standard." (*Id.*)

[FF 18] JEDEC Patent Policy automatically takes RAND rights to all patents that contain Essential Patent Claims for a Standard generated by a committee on which a Committee Member is a member, regardless of disclosure. PX1067 recites, at 0034:

> Subject to the terms and conditions of section 8.2.4, each Committee Member, as a condition of Participation, agrees to offer to license on RAND terms, to all Potential Licensees, such Committee Member's Essential Patent Claims for the use, sale, offer for sale or other disposition of a portion of a product in order to be compliant with the required portions of a final approved JEDEC Standard

> issued during the period of membership in that committee. The licensing commitment does not apply to Essential Patents of a Committee Member where notice of a Refusal to License has been given by the Committee Member in accordance with 8.2.3.1.

(*See also* JM21 at § 8.2.5 (PX1067 at 0035) ("If a Committee Member, at its discretion, elects not to submit a License Assurance/Disclosure Form (see Annex A.3) at or before the time the ballot closes and does not otherwise provide notice of an unwillingness to license in accordance with 8.2.3.1, the Committee Member and its Affiliates will be deemed to have agreed to offer to grant licenses on RAND terms and conditions for all of its Essential Patent Claims of the balloted Standard, if and as consistent with 8.2.4.").

[FF 19] Samsung's 30(b)(6) corporate representative regarding its participation in JEDEC, Mr. Hyun-Joong Kim, testified that he believed JEDEC's patent disclosures are recommended rather than a mandatory obligation:

> Q. You are here to testify on behalf of Samsung regarding Samsung's application at JEDEC and Samsung's patents. Correct?
>
> A. Yes, that's correct.
>
> Q. So is Samsung required to declare its patents that -- making (unintelligible) of the voltage regulation onboard feature?
>
> A. My understanding is that JEDEC recommends disclosure, but it's not a mandatory obligation.

(Dkt. No. 537 at 124:23–125:11.)

[FF 20] Both parties' witnesses acknowledged that there is no obligation for the Representative to search for potentially essential patents. (Dkt. No. 537 at 11:24–12:2 (Halbert), 151:15–18 (Gillingham).)

[FF 21] Mr. Martinez testified that he did not have personal knowledge of any patents that were essential to JEDEC standards. (Dkt. No. 537 at 30:23–31:6 (Martinez).)

[FF 22] Neither party in this case asserted that any of the Asserted Patents is essential. (*See, e.g.*, Dkt. No. 426 at 142:23–25, 192:22–24.)

[FF 23] With respect to the '918 and '054 Patents, no evidence was presented that Mr. Martinez (1) had personal knowledge of the '918 and '054 Patents and believed they contained Potentially Essential Patent Claims, and (2) knowingly failed to disclose them to the JEDEC JC-40 committee.

[FF 24] The Court finds that Samsung has not proven by clear and convincing evidence that Netlist violated any JEDEC disclosure duty as to the '918 or '054 Patents. The duty of disclosure is specific to Representatives, i.e., the individual who represents the company at JEDEC meetings, and is limited to potentially essential patents of which the representative has personal knowledge. (JM21 at § 8.2.3 (PX1067 at 0033) ("All Committee Members must Disclose Potentially Essential Patents, known to their Representative(s) to be Potentially Essential Patents that are owned or controlled by that Committee Member to the personal knowledge of the Representatives."); Dkt. No. 537 at 151:8–14 (Gillingham) ("Q. Who is the actual person under the JEDEC policy responsible for disclosure of patents? A. The person responsible is the representative who attends the meetings. Q. What patents is a representative required to disclose? A. The representative who attends the meetings is required to disclose patents to which he or she has personal knowledge.").

[FF 25] There is no obligation by the Representative to search for potentially essential patents. (JM21 at § 8.2.3 (PX1067 at 0033) ("[N]either Committee Members nor Representatives shall have any obligation to conduct a search for Potentially Essential Patents."); Dkt. No. 527 at 11:24–12:2 (Halbert) ("Q. Now, is there an obligation for member companies to go out and actively search for patents? A. No, there's no obligation. In fact, it states there's no obligation to

search for patents"); *id.* at 151:15–18 (Gillingham) ("Q. And under the JEDEC policy, do committee members or representatives have an obligation to search for potentially essential patents? A. No, there's no obligation to search.").)

[FF 26] Netlist's JEDEC representative for the committee that developed the DDR5 PMIC Specifications (JC-40) is Mario Martinez. (Dkt. No. 537 at 62:15–21 (Milton) ("Q. And we heard testimony from Mr. Mario Martinez earlier. Right? A. Yes, sir. . . . Q. And he is the Netlist representative at JEDEC. Correct? A. He represents Netlist as a member company, yes."), *id.* at 29:6–19. Mr. Martinez was also Netlist's representative for JC-42 and JC-45 committees. (*Id.* at 28:3–17.)

[FF 27] Mr. Martinez testified that he did not have personal knowledge of any essential patents. (*Id.* at 30:23–31:6 (Martinez) ("Q. So is it your testimony now that you personally have personal knowledge about which patents are essential to the JEDEC standards? A. No, I do not have personal knowledge. I just know that our patents are based on products which can cover multiple areas. And per the JEDEC discussions at the board level, those patents can read on multiple technologies going forward. So I'm basing my comment on JEDEC portfolio board of director comments.").

C. Prosecution Laches

[FF 28] The '918 and '054 Patents both claim priority to U.S. Provisional Patent App. No. 60/941,586 (the "'586 provisional application"), which was filed on June 1, 2007. (JTX0004 at 1–2.) The first non-provisional utility application that the '918 and '054 patents claim priority to is U.S. Patent App. No. 12/131,873 (the "'873 application"), filed on June 2, 2008. (See JTX0003; JTX0004.) The '873 application was expressly abandoned by Netlist on October 30, 2008 and did not issue as a patent. (JTX0004.)

[FF 29] Between September 2008 and 2022, Netlist prosecuted several applications in the patent family of the '918 and '054 Patents.

[FF 30] On September 29, 2008, Netlist filed U.S. Patent App. No. 12/240,916 ("the '916 application"), which was a continuation of the '873 application. (*Id.*) The '916 application issued as U.S. Patent No. 8,301,833. (*Id.*)

[FF 31] During prosecution of the '916 application, on March 31, 2011, the U.S. Patent and Trademark Office ("PTO") issued a restriction requirement requiring Netlist to elect a subset of its originally filed claims for prosecution. (PX1816 at 118–24.) The PTO identified claims drawn to "a non-volatile and a volatile memory systems [sic]," "a power module for a volatile and non-volatile memory including a voltage conversion element," "non-volatile and a volatile memory systems [sic] wherein the memory systems operate at different frequencies depending on the mode of operation," and methods of "restoring data" as being drawn to distinct inventions. (PX1816 at 120.) On May 20, 2011, Netlist elected to first prosecute Group III in the '916 application. (*Id.* at 142.)

[FF 32] On July 26, 2012, Netlist filed U.S. Patent App. No. 13/559,476 (the "'476 application"), which was a continuation of the '916 application. (JTX0004.) The '476 application issued as U.S. Patent No. 8,874,831. (*Id.*)

[FF 33] On September 17, 2014, Netlist filed U.S. Patent App. No. 14/489,269 (the "'269 application"), which was a continuation of the '476 application. (*Id.*) The '269 application issued as U.S. Patent No. 9,158,684. (*Id.*)

[FF 34] On August 31, 2015, Netlist filed U.S. Patent App. No. 14/840,865 (the "'865 application"), which was a continuation of the '269 application. (*Id.*) The '865 application issued as U.S. Patent No. 9,928,186. (*Id.*)

[FF 35] On March 23, 2018, Netlist filed U.S. Patent App. No. 15/934,416 (the "'416 application"), which was a continuation of the '865 application. (*Id.*) The '416 application was abandoned and did not issue as a patent. (*Id.*)

[FF 36] On December 30, 2020, Netlist filed U.S. Patent App. No. 17/138,766 (the "'766 application"), which was a continuation of the '416 application. (*Id.*) The '766 application issued as the '918 Patent. (*Id.*)

[FF 37] On May 24, 2021, Netlist filed U.S. Patent App. No. 17/328,019 (the "'019 application"), which was a continuation of the '766 application. (*Id.*) The '019 application issued as the '054 Patent. (*Id.*)

[FF 38] From the first utility application (the '873 application) through the originally filed '416 application, the applications in the '918 and '054 Patent family contained claims that recited hybrid memory—that is, a combination of volatile and non-volatile memory. (Dkt. No. 537 at 91:11–22 (McAlexander).)

[FF 39] Mr. Scott Milton, a named inventor of the '918 and '054 Patent family, testified at the jury trial that the patent family of the '918 and '054 Patents related to hybrid memory, which includes the concept of combining volatile memory (e.g., DRAM) and non-volatile memory (e.g., flash memory) together on a single memory module. (Dkt. No. 487 at 244:19–247:24.)

[FF 40] Mr. Milton also testified that Netlist developed on-module power management initially used for non-volatile DIMM ("NVDIMM") products, but at the time of trial, Netlist was using it in DDR5 DIMMs. (*See id.* at 204:8–11.)

[FF 41] Mr. Milton further testified that Netlist designed and was in the process of launching a DDR5 module with on-module power management. (*Id.* at 231:12–232:2.)

[FF 42] Netlist sought expedited examination of the applications that led to the '918 and '054 Patents (the '776 and '019 applications, respectively). (*See* JTX0021 at 113, 138; JTX0045 at 2.) Both patents issued within a year after the applications were filed. (JTX0003 at 1; JTX0004 at 1.) Although some applications in the '918 and '054 Patent family were abandoned, Netlist did not, for example, engage in a practice of serial abandonment of applications to extend the life of the patent family.

[FF 43] Netlist's expert witness, Dr. William Mangione-Smith, testified that Netlist's filing of continuation patents is a common practice:

> Q. And can you explain how the continuation process works?
>
> A. Sure. So basically what happens, as I understand it, I'm not an attorney, is an inventor or a company will file a patent application. And the Patent Office will come back and say, we're applying restrictions, which means, we think there's two sets of related -- of unrelated inventions, there's two sets of inventions that should be continued independently.
>
> And so a company will say, okay, we'll immediately continue with set A, and we'll follow up with set B as a continuation.
>
> . . .
>
> Q. So in your experience continuations are common practice.
>
> A. They are very common, yes.

(Dkt. No. 488 at 322:5–15, 324:1–3.)

[FF 44] Dr. Mangione-Smith also explained that Samsung took a similar approach in filing continuation patents to their original provisional applications:

> Q. Now, does Samsung use the continuation process?
>
> A. Sure.
>
> Q. Could you show us some examples?
>
> A. I'd be happy to. I no longer appear to have control of the slides.

> Here is the '509 Patent from Samsung, and you'll see that I've highlighted that this was a number of different continuations. And, in fact, from when they first filed their application until that '509 Patent issued, it covered 16 years.
>
> Q. Any other examples?
>
> A. Indeed. If we flip forward. . . . This is the '894 Patent. You'll see it also is a continuation of a set of continuations. And, in fact, since the original application was filed for this patent until the '894 issued, it spanned 14 years. Here's the '700 Patent, which, again, was a continuation. And from the time the original patent was filed until that patent issued, it spanned 13 years.

(*Id.* at 323:2–25.)

[FF 45] Netlist was restricted from participating in JEDEC from February 2015 through August 2018, when Netlist refused to offer certain of its patents on RAND licensing terms. (DTX-10 at 16; Dkt. No. 537 at 27:11–28:21 (Martinez).) Netlist's membership in the JC-40, JC-42, and JC-45 committees was reinstated in August 2018 when it issued notices of willingness to license the same patents that it previously refused to license, retroactive to 2015. (DTX-10 at 16; Dkt. No. 537 at 15:19–17:25 (Halbert).)

[FF 46] The members of JEDEC, including Samsung, were developing standards for DDR5 DIMM technology since 2016, and work on the DDR5 standards was underway in August 2018, when Netlist's JEDEC membership was reinstated. (Dkt. No. 537 at 15:25–16:8, 17:11–25 (Halbert).)

[FF 47] Approximately four months after filing the '416 application in July 2018, and after Netlist's JEDEC membership was reinstated, Netlist's representative Mario Martinez attended a JC-40 JEDEC committee meeting in December 2018. (DTX-33 at 2.)

> Q. Have you attended any JEDEC meetings where DDR5 was discussed?
>
> A. I've attended JEDEC meetings that discussed DDR5, yes.

Q. When did you start attending meetings where DDR5 was being developed or discussed?

A. I believe it was upon my return in August, the first meeting after our -- when we were -- our membership was renewed back in August.

Q. After 2019, did you continue to attend JEDEC meetings involving DDR5?

A. Upon my return in August, I continued to attend committee sessions which had discussions on DDR5.

Q. Including in this year, 2022?

A. Up to today.

(Dkt. No. 537 at 29:6-19 (Martinez).)

[FF 48] One of the presentations made at the December 2018 meeting was the proposed full specification of the DDR5 PMIC5000. (DTX-33 at 21–22.) Mr. Martinez attended two additional JEDEC meetings in March 2019 and June 2019 where the full PMIC specification was again presented. (DTX-14 at 2, 15; DTX-34 at 2, 13.)

[FF 49] The PMIC is the DDR5 module's on-board Power Management Integrated Circuit, which provides power and control to the various components of the memory module. (Dkt. No. 492 at 884:19–24 (McAlexander); *see also* Dkt. No. 490 at 636:24–25 (Jung Bae Lee) ("Q. DDR5 has power management control on the module? A. Yes, and it has the name of PMIC.").)

[FF 50] Samsung's technical expert, Mr. McAlexander, testified that Samsung's DDR5 standard compliant memory modules do not include hybrid memory:

Q. What are you showing here, sir?

A. What I'm showing here is a[n] outline of a DDR5 Samsung product that's been accused of infringing the '918 Patent.

Q. And what are you labeling in red there?

A. What I'm labeling in red here is the different black components that you see that are populated on this particular module, and the

> only components that are there for storage of information, data, is the DRAM.
>
> Q. Are there any flash chips on the DDR5 modules?
>
> A. No, there are no flash chips on the DDR5 module.
>
> Q. And what are you showing here on DDX 3-30?
>
> A. What I'm showing here is an additional component that's on the module, DRAM-only module, that is called the PMIC, or the power management integrated circuit, and that is a smaller little black rectangular box more located toward the center of the module.

(Dkt. No. 492 at 883:24–884:14 (McAlexander).)

[FF 51] After attending the JEDEC meetings where the DDR5 PMIC standard was disclosed, Netlist filed an amendment to the'416 application on July 22, 2019. (JTX0050 at 213–219.) The amendment canceled the previous claims that recited hybrid memory, and introduced new claims that no longer recited hybrid memory. (*Id.* at 214; *see also* Dkt. No. 537 at 91:23–92:6 (McAlexander).) Mr. McAlexander testified that the July 22, 2019 amendment was the first time to introduce a claim in this patent family that did not recite hybrid memory. (Dkt. No. 537 at 91:7–92:6 (McAlexander).)

[FF 52] The '416 application was ultimately abandoned (JTX0050 at 418–19), but prior to that, Netlist filed the '766 application as a continuation of the '416 application on December 30, 2020. (JTX0003.) The '766 application issued as the '918 patent. (*Id.*) Like the amended claims of the '416 application, the claims of the '918 patent do not recite hybrid memory. (*Id*; *see also* Dkt. No. 537 at 92:7–11 (McAlexander).) The claims of the continuation of the '918 patent, which was filed on May 24, 2021 and issued as the '054 patent, also do not recite hybrid memory. (JTX0004; *see also* Dkt. No. 537 at 92:12–13 (McAlexander).)

[FF 53] During the jury trial, Samsung argued that the '918 and '054 Patents are invalid for lack of written description because the claims departed from the essential elements of the

invention as described in the specification. For example, Samsung's expert witness, Mr. McAlexander testified:

> Q. Now, do you also have an opinion as to whether the '918 and '054 Patent claims are invalid for failing to satisfy written description?
>
> A. Yes, I do.
>
> Q. What is that opinion?
>
> A. I've looked at the entirety of the specification in the claims, and I've come to the conclusion that the written description for the '918 and '054 Patents, which I'm talking about the text and the illustrations, do not support the asserted claims. I've identified three reasons. One is the claims fail to require the flash DRAM hybrid structure as a memory module. Secondly, the claims fail to require data transfer between the flash and the DRAM memory module -- memory devices on that module. And, third, the claims fail to require backing up the data between the flash and the DRAM, which is the focus of the intent of the specification.
>
> Q. Going back to the '918 and '054 title of the patents, what does the title tell you about what was described in the '918 and '054 patents?
>
> A. Both patents are directed to a hybrid memory module that includes both flash and DRAM on that module.
>
> Q. Do any of the claims that are asserted in this claim, do they require flash?
>
> A. None of them do.

(Dkt. No. 492 at 899:7–900:6 (McAlexander).)

> Q. Now, we heard that the '918 and '054 Patents are continuation patents?
>
> A. Yes, that's correct.
>
> Q. Do you have continuation patents yourself?
>
> A. Oh, yes.
>
> Q. Is that an okay thing to do?

A. Yes.

Q. But are there limits?

A. Yes. Still have to stay true to the invention.

Q. And what do you mean by that?

A. What I mean is, is that when you originally file in 2007 in this case the provisional application and the continuations, you have to maintain the specification on a continuation, and what you change then is the claims that are directed to that. But it still has to fall within the scope of what is -- what the patent is about.

Q. And if the claims that no longer match up with the specification, would those claims be valid or invalid?

A. Invalid.

(*Id.* at 906:15–907:8 (McAlexander).)

Q. So ultimately what is your conclusion then as to why the '918 and '054 Patent claims have no support in the patents and therefore are invalid?

A. Well, as I said in my testimony earlier, I said there were three particularly primary fundamental aspects that the written description is directed to. I did my evaluation, and my conclusions confirm that initial thought. And the statements are: the claims are invalid because they fail to require the flash-DRAM hybrid structure, the claims are invalid because they fail to require data transfer between flash and DRAM memory devices, and the claims are invalid because they do not require backing up data between flash and DRAM.

(*Id.* at 908:20–909:7 (McAlexander).)

[FF 54] Samsung made similar arguments in its summation:

And we know that they filed continuation after continuation. And there's nothing wrong with continuation practice. I tried to make that clear in my opening that that's allowed under the rules. What you can't do, what you can't do, is keep filing these continuations and take the patent further and further and further away from what you actually told the Patent Office, that you wrote down in your written description. Because when you do that, ladies and gentlemen, the patent is invalid.

> And here we see there was over 13, almost 14 years between the time that they filed that initial disclosure and the -- the first -- the '918 Patent issued.

(Dkt. No. 496 at 1350:3–14.)

[FF 55] The jury rejected Samsung's arguments concerning written description, finding that none of the asserted claims of the '918 and '054 Patents were invalid. (Dkt. No. 479 at 5.)

D. Unclean Hands

[FF 56] At the outset of this litigation, in its December 20, 2021 complaint, Netlist accused Samsung's "JEDEC-standard compliant memory modules" of infringing the '918, '054, and '339 Patents. (Dkt. No. 537 at 48:19–49:13 (Milton); Dkt. No. 1 at ¶ 38.) Netlist relied on the JEDEC standards to allege infringement. (Dkt. No. 1 ¶¶ 61, 72.)

[FF 57] In its May 3, 2022 amended complaint, Netlist continued to rely on the JEDEC standards to allege infringement of the patents. (Dkt. No. 537 at 50:12–51:1 (Milton); Dkt. No. 23 ¶¶ 87, 97.)

[FF 58] In its May 4, 2022 infringement contentions, Netlist accused JEDEC standard-compliant memory modules of infringing the asserted patents. (Dkt. No. 537 at 74:7–18, 93:7–15 (McAlexander).)

[FF 59] On June 8, 2022, Netlist sent a letter to Samsung proposing to license its "patents that are essential to implement JEDEC standards for DDR4 LRDIMMs (the 'DDR4 LRDIMM Patents')" on FRAND terms. (DTX-32 at 2; Dkt. No. 537 at 57:8–20 (Milton).) Netlist expressly identified the '339 patent as one of the DDR4 LRDIMM Patents that is essential to implement JEDEC standards. (DTX-32 at 8; Dkt. No. 537 at 57:21–58:10 (Milton).)

[FF 60] Samsung, in response, disputed that any of Netlist's patents were essential, noting "Netlist has never obtained a final ruling that it has a valid patent claim that is essential to any JEDEC standard." (PTX1821 at 1–3.)

[FF 61] In an interrogatory response dated July 11, 2022, Samsung apparently took no position on the essentiality of Netlist's patents, instead asserting that Netlist had failed to prove essentiality. (Dkt. No. 537 at 132:14–25 ("Netlist has not shown that any of the asserted claims are essential to any JEDEC standard identified in Netlist's infringement contentions. Indeed, although Netlist has declared other patents essential to various JEDEC standards, Samsung is not aware of Netlist ever declaring any of the asserted patents in this case essential to a JEDEC standard.").)

[FF 62] On November 10, 2022, Samsung supplemented its response to affirmatively contend that the patents were not essential. (*Id.* at 133:1–6 ("Netlist has not shown that any of the asserted claims are essential to any JEDEC standard identified in Netlist's infringement contentions. Samsung disagrees that any claim is essential to any JEDEC standard, and incorporates its response to Interrogatory No. 1.").)

[FF 63] Netlist stated on November 21, 2022, in its first supplemental interrogatory response to Samsung's Interrogatory 15 that the claims of the '339, '918, and '054 Patents were necessarily infringed by Samsung's JEDEC compliant devices, and that the asserted claims of such patents were "essential patent claims" as defined by JEDEC:

> JEDEC manual No. 21T, Section 8.2.1, defines the term quote "[E]ssential [P]atent [C]laims" as "Those patent claims, the use of which would necessarily be infringed by the use, sale, offer for sale, or other disposition of a portion of a product in order to be compliant with the required portions of a final approved JEDEC standard."
>
> Netlist's asserted claims of U.S. patent Nos. 10,860,506, the '506 Patent, 10,949,339, the '339 Patent, 11,016,918, the '918 Patent, and 11,232,054, the '054 Patent, are necessarily infringed by the use, sale, offer for sale, or other disposition of a DDR4 LRDIMMs and DDR5 LRDIMMs and RDIMMs that are in compliance with the specifications of JEDEC standards and subsequent revisions identified in Netlist's preliminary infringement contentions and supplemental infringement contentions, which are incorporated here by reference.

. . .

> Thus, Netlist's asserted claims of the four patents are "[E]ssential [P]atent [C]laims" as defined by JEDEC manual No. 21T, Section 8.2.1.

(Dkt. No. 537 at 43:8–44:9.)

[FF 64] Netlist's Second Supplemental Interrogatory Responses, served on December 19, 2022, stated as follows:

> Based on subsequent confidential deposition testimony of Samsung witnesses, the necessity of using Netlist patents is a commercial necessity for the sale of Samsung's accused infringing products. As to whether there's a theoretical way of implementing the standards without using Netlist patents, that is irrelevant in this case because the objective evidence demonstrates that Samsung infringes.
>
> Furthermore, Samsung does not claim that the patents are necessary for practicing the standard, which means its infringement involuntary and, thus, its culpability cemented [verbatim].

(*Id.* at 44:14–24.)

[FF 65] The JEDEC Patent Policy (JM21T) states as follows:

> Essential Patent Claims: Those Patent claims the use of which would necessarily be infringed by the use, sale, offer for sale or other disposition of a portion of a product in order to be compliant with the required portions of a final approved JEDEC Standard.
>
> NOTE Essential Patent Claims do not include Patent claims covering aspects that are not required to comply with a JEDEC Standard, or are required only for compliance with sections that are marked "example," "non-normative," or otherwise indicated as not being required for compliance

(DTX-08 at 31.)

[FF 66] At the bench trial, Samsung's JEDEC expert, Mr. Halbert, testified that just because an infringing product is standard compliant does not mean that the patent claim is necessarily essential. This is because JEDEC allows for product differentiation between suppliers, and there are different ways of implementing the standard:

> Q. This is paragraph 41 for your report. You wrote in your report, "Because standards are drafted somewhat broadly to allow individuals and companies in the industry to develop their own standard compliant solutions, i.e., to allow for product differentiation between suppliers, a patent may be infringed by some implementations of the standard and not others. In that case, the patent would not be a potentially essential patent as defined by JEDEC." Did you write that in your report?
>
> A. I did.

(Dkt. No. 537 at 22:15–24 (Halbert).)

[FF 67] Netlist's JEDEC expert, Mr. Gillingham testified that "[a]n essential patent claim are those claims which would necessarily be infringed by a product that is compliant with required portions of an approved JEDEC standard. So it would not include optional portions of a standard or examples or reference designs, for example." (*Id.* at 136:22–137:3 (Gillingham).)

[FF 68] Netlist's corporate representative, Mr. Scott Milton, testified at the bench trial that the '918, '054, and '339 patents are "essential," "in ordinary use of the of the word 'essential.'" (*Id.* at 52:5–13, 53:5–54:11 (Milton).)

[FF 69] Mr. Milton also testified in a deposition during discovery that he believed the '339, '918, and '054 patents were essential in the "ordinary" sense of the word. At this deposition, Mr. Milton stated he had not performed a technical analysis comparing the claims to the required portions of the JEDEC standards:

> Q. (BY MR. SHEASBY) Mr. Cordell showed you part of your deposition and he didn't show you all of it, and I wanted to show you another portion of it. So this is the page before he showed where the question is, "Is the '918 Patent essential to any standard?"
>
> Answer: "So how -- how is the word 'essential' being defined?"
>
> Question: "So how do you define 'essential' here?
>
> "Well, I guess I'm asking is it a legal term or its ordinary use?"

> Question: "Okay. It's ordinary use. Okay. Today I'm not asking you any legal questions. I have no interest in getting your input on legal issues."
>
> Q. (BY MR. SHEASBY) Question: "So when you say 'essential to DDR5 products', do you mean essential to DDR5 standard as set out by JEDEC?"
>
> Answer: "Yeah. I don't know that I can -- if I can comment on the standard because I'm not -- I'm not designated on JEDEC."

(*Id.* at 65:4–16, 67:1–6 (Milton).)

[FF 70] Mr. Milton agreed with the representation Netlist made in its Second Supplemental Interrogatory Responses from December 19, 2022 that the '339, '918, and '054 patents "are necessarily infringed by the use, sale, offer for sale, or other deposition [sic] of a DDR4 LRDIMMs and DDR5 LRDIMMs and RDIMMs that are in compliance with the specification of JEDEC standards and subsequent revisions," stating "[a]t that time I think that was correct." (Dkt. No. 537 at 51:10–25 (Milton).)

[FF 71] Mr. Milton also testified at the bench trial that Netlist does not perform a formal analysis before disclosing its patents as essential in licensing communications. (Dkt. No. 537 at 67:16–22 (Milton) ("Q. Does Netlist do an element-by-element analysis in which it compares its claims to the standard before -- A. No -- I'm sorry. Q. -- before disclosing its patents as essential? A. No, we don't. You know, I did talk to our head of licensing Eric Lucas, who is our VP of licensing, and he confirmed that for me--we do not do that.").

[FF 72] At a deposition of Netlist's CEO, Mr. Chuck Hong, during fact discovery, Netlist presented Samsung with a set of notes which state "To the extent Netlist contends that any of the asserted claims of the Asserted Patents are essential to a standard, the basis for Netlist's proposed FRAND royalty calculation. Expert analysis required for SEP determination. Netlist has not performed a formal SEP analysis[.] LRDIMM, DDR5 and HBM cannot be made

commercial viable with Netlist technology." (Dkt. 514-14 (PX1822) at 2; *see also* Dkt. No. 537 at 69:11–70:3 (Milton).)

[FF 73] The close of fact discovery and the deadline to serve opening expert reports in this case was December 22, 2022. (Dkt. 109 at 3.)

[FF 74] On November 10, 2022, Samsung supplemented its interrogatory responses to contend that the asserted patents are not essential. (Dkt. No. 537 at 1–6.) By December 19, 2022, Netlist had supplemented its interrogatory responses to assert that essentiality of the asserted patents was "irrelevant in this case because the objective evidence demonstrates that Samsung infringes." (*Id.* at 44:14–24.) Although Netlist never explicitly spelled this out, Netlist essentially conceded that the asserted patents are not standard essential.

[FF 75] When Netlist's expert Dr. Mangione-Smith served his opening report, Mr. McAlexander testified that he believed, based on Dr. Mangione-Smith's report, that Netlist still believed the asserted patents were essential. (Dkt. No. 537 at 76:16–21, 98:6–11, 111:7–13 (McAlexander).)

[FF 76] In Netlist's pretrial briefing, Netlist represented that its experts would not argue the asserted patents are essential, but rather, Netlist planned to show infringement on an element-by-element basis relying on the features of Samsung's accused products. For example, in its Motion to Strike Portions of the Rebuttal Expert Report of Paul K. Meyer filed on February 3, 2023, Netlist stated:

> Netlist's experts will not argue that the patents are essential to and therefore infringed by any entity practicing the standard. Instead, Netlist will show on an element by element bases why Samsung's specific accused designs infringe. In other words, the jury will not make a determination of whether the patents-in-suit are essential or not essential; the jury will only determine whether Samsung infringes and how much Samsung owes in damages for its infringement.

(Dkt. No. 214 at 6.)

[FF 77] On March 10, 2023, during the briefing of the parties' motions *in limine,* Netlist affirmatively stated it was not contending that the asserted patents were essential. (Dkt. No. 379 (Netlist Motions *in Limine*) at 1 ("[N]either side's experts are proving or disputing infringement by claiming the patents are essential to the JEDEC standard"), 11 ("But RAND obligations attach to standard-essential patents ("SEP"), and in this case, no expert contends that any of the Asserted Patents are SEPs.").)

[FF 78] At the pre-trial conference on March 28 and 29 and April 6, 2023, Netlist's counsel stated that the '918, '054, and '339 patents were not essential. (Dkt. No. 537 at 59:10–19 (Milton).) The following statements were made by Netlist's counsel:

> MR. SHEASBY: And so the evidence that we will show is that none of these patents are standard essential patents.

(Dkt. No. 426 at 142:23–24.)

> MR. SHEASBY: One of the issues that is -- I think Samsung is attempting to inject into this case is sort of a suggestion in front of the jury that we acted improperly with JEDEC. And obviously since standard essentiality is not in this case, we don't believe that any sort of allegations of impropriety in front of JEDEC have a place in front of this jury.

(*Id.* at 218:16–22.)

> These patents aren't standard essential.

(*Id.* at 220:16.)

> But regardless of whether those two go to the jury on actual notice, we think we -- we intend to present a robust defense to marking because we believe these patents are not standard essential and -- and rely -- and Samsung is using them specifically.

(*Id.* at 144:25–145:4.)

> The second issue is because the Court had concluded yesterday that no one's making a standard essentiality claim for these patents, any

> discussion of behavior in JEDEC and patenting the technology that was being developed by JEDEC is just an ad hominem because he agrees that JEDEC -- the patents are not standard essential, and our expert agrees that the patents are not standard essential as well. So based on that, I don't see any -- listen. Is it possible to come up with some theoretical way in which the jury could care about the way JEDEC is -- operates and Netlist's role in JEDEC? Yeah. If you stretch things far enough, they can say, Oh, it relates to damages, it relates to infringement. But that is so tenuous in comparison to the toxicity of talking to us about copying from JEDEC based on meetings we attended. There is actually no validity allegation that we copied from JEDEC left in the case. There's no non-infringement allegation based on JEDEC in the case because these patents are standard essential. So a clever lawyer will say there's something that this relates to, but any relationship beyond laches and inequitable conduct is so attenuated that I think on the balance of -- the balancing test it should be stricken.

(Dkt. No. 427 at 127:16–128:12.)

> MR. SHEASBY: Sure. These patents are not standard essential. There's no obligation to disclose a patent that's not standard essential. There's no allegation from a legal -- in front of the jury that goes to whether we complied with our obligations to JEDEC, because we have no obligations to JEDEC because they're not essential. The MIL should be granted.

(*Id.* at 199:25–200:6.)

[FF 79] At the time of trial, Netlist asserted infringement based on a comparison of the claims of the asserted patents to Samsung's accused products.

[FF 80] Netlist asserted claims 1, 8 and 9 of the '339 Patent. Claim 1 is independent and claims 8 and 9 each depend from claim 1. Claim 1 recites, in part: "wherein the byte-wise data path includes first tristate buffers, and the logic in response to the module control signals is configured to enable the first tri-state buffers to drive the respective byte-wise section of the N-bit wide write data to the respective module data lines during the first time period." '339 Patent at 19:62–67.

[FF 81] To prove infringement of the tri-state buffer limitation of the '339 Patent, Netlist's infringement expert, Dr. Mangione-Smith relied on testimony of the corporate designee of Renesas concerning buffers used in the accused Samsung DDR4 LRDIMM products in combination with a Renesas datasheet (JTX0020). (Dkt. No. 488 at 6–22.)

[FF 82] Samsung designated Seung-Mo Jung as its corporate representative on "technical topics related to DDR4 LRDIMMs." (Dkt. No. 537 at 128:18-20 (Seung-Mo Jung) ("Q. You've been designated to speak on behalf of Samsung as to technical topics relating to DDR4 LRDIMMs? A. That's correct.").

[FF 83] Mr. Jung was shown the JEDEC specification for the DDR4 LRDIMM buffers and testified that when Samsung tests its products for compliance with JEDEC standards, it addresses compliance with operations. (*Id.* at 129:13 (Seung-Mo Jung) ("We test to test the operations that are defined by JEDEC.").

[FF 84] Mr. Jung testified that the JEDEC standards do not specify tri-state buffers:

> Q. And you understand that JEDEC specifies a tri-state buffer for the DBs?
>
> A. Let me check. If you could tell me where in JEDEC it is specified? I'm going to check that part.
>
> Q. Let's go to the DDR4 data buffer standard logic diagram 4.6.1.
>
> A. Okay. Please go ahead.
>
> Q. The DB standard JEDEC standard specifies the use of tri-state buffers. Those are the TX and RX triangles on the right-hand side of this document.
>
> A. To the extent of my knowledge, it doesn't specify here that these are related to tri-state buffers.

(*Id.* at 129:14-25 (Seung-Mo Jung).)

[FF 85] Samsung's technical expert, Mr. McAlexander, confirmed that Samsung's corporate representative, Mr. Jung, testified that the JEDEC standard does not specify tri-state buffers. (*Id.* at 101:1–9 (McAlexander) ("Q. And Mr. Jung testifies that JEDEC standard doesn't specify tri-state buffers. Correct? A. That is what Mr. Jung stated, yes. Q. And Mr. Jung was Samsung's corporate representative under oath. Correct? A. I can't deny that. He was. Q. And you understand the claims of the '339 strictly require the use of a tri-state buffer. Correct? A. Yes, they do.").

[FF 86] Netlist asserted claims 1, 5, 13, 16, 18, and 19 of the '918 Patent. Claim 1 is independent and claims 5 and 13 depend directly or indirectly from claim 1. Claim 16 is independent and claims 18 and 19 depend directly or indirectly from claim 16.

[FF 87] Netlist asserted claims 16 and 17 of the '054 Patent. Claim 16 is independent and claim 17 depends from claim 16.

[FF 88] Each of the asserted independent claims of the '918 and '054 Patents recite, in some variation "first, second, and third buck converters configured to receive a pre-regulated input voltage and to product first, second and third regulated voltages, respectively" and "a converter circuit configured to reduce the pre-regulated input voltage to provide a fourth regulated voltage, wherein the first second, third and fourth regulated voltages have first, second, third, and fourth voltage amplitudes, respectively." '918 Patent at 39:60–67.

[FF 89] To prove infringement of the first, second, and third buck converters, and the converter circuit, Netlist's infringement expert, Dr. Mangione-Smith relied on JTX-11 and JTX-12 (datasheets for PMIC for DDR5 DIMMs) and JTX-30 (Renesas datasheet for PMIC). (Dkt. No. 488 at 334:24–337:10.) Dr. Mangione-Smith referenced a LDO of the accused product as

meeting the claimed "converter circuit." (*Id.* at 335:5–7.) Dr. Mangione-Smith also testified that to the extent the LDO does not literally infringe, it is equivalent. (*Id.* at 337:11–21.)

[FF 90] At the bench trial, Netlist presented the testimony of Mr. Kyungsoo Park, the technical leader for DDR5 PMICs at Samsung. (Dkt. No. 537 at 130:13–19 (Kyungsoo Park) ("Q. What is your position at Samsung LSI? A. TL. Q. What does TL stand for? A. Technical leader. Q. You said you are a technical leader. In which project or which group are you the technical leader for? A. I am in the group that works on PMIC for the DDR5.").

[FF 91] Mr. Park was shown a JEDEC PMIC specification, which Mr. McAlexander relied on to assert that an LDO is required by the standard, and Mr. Park testified that Samsung's DDR5 modules both comply with the JEDEC PMIC specification but do not implement the portions of the PMIC specification Mr. McAlexander claimed are required. (Dkt. No. 537 at 130:20–24 (Kyungsoo Park); 77:21–78:7 (McAlexander).) Mr. Park testified that Samsung does not implement Vbias using an LDO as set out in the PMIC Specification Mr. McAlexander presented to the Court and identified above:

> Q. I have one question for you on Exhibit number 2, page 13 [JTX0069-0013] that's on the screen right now. In section 2.1.1, the last bullet point says: "3 LDO regulators: VBias, VOUT_1.8V, VOUT_1.0V." Do you see that?
>
> A. Yes, I see it.
>
> Q. Okay. Do you recall your testimony earlier that in Samsung's PMIC, the voltage regulator that generates VBias is not an LDO? Do you recall that testimony?
>
> A. Yes, I recall.

(*Id.* at 130:20–131:3 (Kyungsoo Park).)

[FF 92] Mr. Park then explained that compliance with the JEDEC standards for DDR5 did not require the presence of the particular regulators recited in the specifications, only that

certain output voltages are available. As a result, Samsung could comply with the required portions of the DDR5 JEDEC standard without implementing the portion of the JEDEC PMIC specifications that Mr. McAlexander showed at the bench trial and Mr. Park discussed at his deposition:

> Q. So in one respect, Samsung does deviate from the standard in that it does not use LDO to generate VBias in two of its PMICs; is that correct?
>
> A. No.
>
> Q. Why isn't the use of switch capacitor regulator instead of LDO a deviation from the JEDEC standard?
>
> A. When I said 'JEDEC standard', I meant it to be the numbers that are defined by the JEDEC standard. However, what type being used, that is not considered to be a standard.
>
> THE CHECK INTERPRETER: It might be slightly different.
>
> "So when I said JEDEC standards, what I meant was something that it is to be defined using numbers in terms of min and max. And as to what type is being used here, that would not be my interpretation of the JEDEC standards."
>
> Q. For topic No. 78, is it your testimony that Samsung's DDR5 PMICs implement all sections of the JEDEC PMIC standards?
>
> A. Yes, it is correct that Samsung's DDR5 PMIC complies with JEDEC's specifications.
>
> Q. And you cannot identify any sections of the JEDEC PMIC standards that Samsung's DDR5 PMICs that do not implement. Correct?
>
> A. Yes, that's correct.

(*Id.* at 131:9–132:5 (Kyungsoo Park).)

[FF 93] Samsung contends that but for Netlist's misrepresentation that it was pursuing a standards-based infringement theory, Samsung would have presented additional evidence supporting its noninfringement and damages defenses. For example, Samsung claims that Mr.

Halbert would have testified that Netlist was obligated to license its potentially essential patents on RAND terms. (Dkt. No. 537 at 14:7–11 (Halbert).) Further, Mr. Halbert would have testified as to Samsung's contributions to JEDEC as compared to Netlist's. (*Id.* at 19:12–20:9.)

[FF 94] Samsung also contends that but for Netlist's misrepresentation, Mr. Alexander would have testified that the accused products do not infringe based on the technical operations defined in the JEDEC standards. (*Id.* at 98:6–11, 111:7–19 (McAlexander).) Further, Mr. McAlexander would have testified that Samsung designed its products in order to comply with JEDEC standards, not because Samsung was "desperate" for Netlist's technology, as Netlist argued at trial. (*Id.* at 95:2–25.) Mr. McAlexander would have also explained that technical descriptions in the JEDEC standards are sufficient for analyzing infringement of standard-compliant products, countering Netlist's argument that he was "crooked" for not reviewing source code of Samsung's products. (*Id.* At 96:1–19.) Samsung contends that several fact witnesses would have also testified that the operation of the accused products was designed to follow the JEDEC standards, not because Samsung was desperate for Netlist's technology. (*Id.* at 35:18–22, 36:21–23 (Hyun-Joong Kim); *id.* at 39:1–12, 40:1–6 (Lo); *id.* at 42:10–17 (Davey).)

[FF 95] Samsung contends that but for Netlist's misrepresentation, Mr. Meyer, Samsung's damages expert, would have testified as to RAND obligations for the '918, '054, and '339 Patents. (*Id.* at 112:21–119:24 (Meyer).)

II. CONCLUSIONS OF LAW

[CL 1] "In an action tried on the facts without a jury . . . , the court must find the facts specially and state its conclusions of law separately." Fed. R. Civ. P. 52(a)(1). "If a party has been fully heard on an issue during a nonjury trial and the court finds against the party on that issue, the court may enter judgment against the party on a claim or defense that, under the

controlling law, can be maintained or defeated only with a favorable finding on that issue." Fed. R. Civ. P. 52(c).

[CL 2] The purpose of these findings is to "afford[] . . . a clear understanding of the ground or basis of the decision of the trial court." *S. S. Silberblatt, Inc. v. U.S. for Use & Benefit of Lambert Corp.*, 353 F.2d 545, 549 (5th Cir. 1965) (internal quotation marks omitted); *see also Schlesinger v. Herzog*, 2 F.3d 135, 139 (5th Cir. 1993) (explaining that trial courts need not "recite every piece of evidence" or "sort through the testimony of . . . dozen[s] [of] witnesses").

[CL 3] In making a particular finding, the district court "does not . . . draw any inferences in favor of the non-moving party and . . . [instead] make[s] a determination in accordance with its own view of the evidence." *Fairchild v. All Am. Check Cashing, Inc.*, 815 F.3d 959, 964 n.1 (5th Cir. 2016) (internal quotation marks omitted). However, a district court still must arrive at each of its factual determinations based on the applicable burden of proof. *In re Medrano*, 956 F.2d 101, 102 (5th Cir. 1992) (reversing the district court because it applied the preponderance of the evidence standard rather than the clear and convincing standard in making its factual determinations under Rule 52).

A. Equitable Estoppel

[CL 4] Equitable estoppel is a complete defense to patent infringement. *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1041 (Fed. Cir. 1992). Equitable estoppel bars a patentee's right to relief where: "(1) the patentee, through misleading conduct (or silence), leads the alleged infringer to reasonably infer that the patentee does not intend to enforce its patent against the alleged infringer; (2) the alleged infringer relies on that conduct; and (3) the alleged infringer will be materially prejudiced if the patentee is allowed to proceed with its claim." *Radio Sys. Corp. v. Lalor*, 709 F.3d 1124, 1130 (Fed. Cir. 2013). In the context of SSOs, the first two prongs are met where first "the patentee had a duty of disclosure to the standard setting

organization" and second "the patentee breached that duty." *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1348 (Fed. Cir. 2011); *see also Barnes & Noble, Inc. v. LSI Corp.*, 849 F. Supp. 2d 925, 939 (N.D. Cal. 2012) ("[I]t is reasonable to infer reliance by the IEEE based on the IEEE's policies requiring disclosure and requiring it to obtain assurances regarding any patents relevant to proposed standards[.]"); *Momenta Pharms., Inc. v. Amphastar Pharms., Inc.*, 255 F. Supp. 3d 279, 289 (D. Mass. 2017.)

[CL 5] The alleged infringer must "show by clear and convincing evidence that . . . (1) the patentee had a duty of disclosure to the standard setting organization, and (2) the patentee breached that duty." *Hynix*, 645 F.3d at 1348.

[CL 6] To prevail on an affirmative defense of equitable estoppel, the accused infringer must first prove that the patentee breached an affirmative duty of disclosure "because without a disclosure duty, [the patent challenger] could not 'reasonably infer' that [the patent owner] did not intend to enforce its patents against it, and without a breach of that duty, [the patent owner's] nondisclosure could not be 'misleading conduct.'" *Hynix*, 645 F.3d at 1348; *see also Genband*, 211 F. Supp. 3d at 899 ("[T]here is no equitable estoppel if . . . there was no breach of an existing duty to disclose the patent."). The requisite "misleading conduct can include 'specific statements, action, inaction, or silence where there was an obligation to speak.'" *Sycamore IP Holdings LLC v. AT&T Corp.*, 294 F. Supp. 3d 620, 655 (E.D. Tex. 2018) (quoting *Hynix*, 645 F.3d at 1348)).

[CL 7] Based on the findings of fact and applicable legal standards discussed above, the Court finds that the doctrine of equitable estoppel does not bar Netlist's infringement claims. Samsung has not demonstrated that Netlist had a duty to disclose the '918 and '054 Patents, at least based on the testimony of Mr. Martinez, Netlist's Representative in JEDEC committees, who

was not shown to have personal knowledge of any Netlist patents that were essential or potentially essential to any JEDEC standard.

[CL 8] Samsung has not identified any other individual having a duty of disclosure with respect to essential or potentially essential patents personally known to such individual that Netlist could have violated.

B. Prosecution Laches

[CL 9] Prosecution laches is an equitable affirmative defense to patent infringement. *Hyatt v. Hirshfeld*, 998 F.3d at 1347, 1359–60 (Fed. Cir. 2021); *Cancer Rsch. Tech. Ltd. v. Barr Labs., Inc.*, 625 F.3d 724, 729 (Fed. Cir. 2010). If found, prosecution laches may "render a patent unenforceable when it has issued only after an unreasonable and unexplained delay in prosecution that constitutes an egregious misuse of the statutory patent system under a totality of the circumstances." *Hyatt*, 998 F.3d at 1360 (quoting *Cancer Rsch.*, 625 F.3d at 728).

[CL 10] The Federal Circuit has explained that "the doctrine of prosecution laches places an additional, equitable restriction on patent prosecution conduct beyond those imposed by statute or PTO regulation." *Hyatt*, 998 F.3d at 1366. "An applicant must therefore not only comply with the statutory requirements and PTO regulations but must also prosecute its applications in an equitable way that avoids unreasonable, unexplained delay that prejudices others." *Id.*

[CL 11] Prosecution laches as a defense to infringement requires proof of two elements: (a) that the patentee's delay in prosecution was unreasonable and inexcusable under the totality of the circumstances; and (b) that the accused infringer or the public suffered prejudice attributable to the delay. *Hyatt*, 998 F.3d at 1362 (citing *Cancer Rsch.*, 625 F.3d at 728–29).

[CL 12] To establish prejudice, an accused infringer must show evidence of intervening rights, in the sense that "either the accused infringer or others invested in, worked on, or used the claimed technology during the period of delay." *Cancer Rsch.*, 625 F.3d at 731.

[CL 13] This Court has previously applied the clear and convincing evidence standard when the enforceability of an issued patent is challenged for prosecution laches. *Personalized Media Commc'ns, LLC v. Apple, Inc.*, 552 F. Supp. 3d 664, 685–86 (E.D. Tex. 2021) ("*PMC*"); *SynQor, Inc. v. Artesyn Techs., Inc.*, 2011 WL 2729214, at *8 (E.D. Tex. July 11, 2011); *Centocor Ortho Biotech, Inc. v. Abbott Labs.*, 669 F. Supp. 2d 756, 771 (E.D. Tex. 2009), *rev'd on other grounds*, 636 F.3d 1341, 1353 (Fed. Cir. 2011). This is consistent with the presumption of validity, and with the application of the clear and convincing evidence standard to other invalidity and unenforceability defenses. *See* 35 U.S.C. § 282(a) (presumption of validity), § 282(b)(1) (unenforceability is a defense to patent infringement); *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1358–59 (Fed. Cir. 1984) (the burden under § 282 "is constant and never changes and is to convince the court of invalidity by clear evidence"), *abrogated on other grounds*, *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290–91 (Fed. Cir. 2011) (abrogating the "sliding scale" approach to inequitable conduct but nonetheless maintaining the clear and convincing evidence standard); *see also Radio Corp. of Am. v. Radio Eng'g Labs.*, 293 U.S. 1, 8 (1934) (Cardozo, J.) ("[O]ne otherwise an infringer who assails the validity of a patent fair upon its face bears a heavy burden of persuasion, and fails unless his evidence has more than a dubious preponderance."); *contra Hyatt*, 998 F.3d at 1370–71 (applying a preponderance of the evidence standard in a *de novo* civil action to obtain a patent under § 145). The Federal Circuit has also confirmed that the PTO may issue laches rejections during prosecution. *In re Bogese*, 303 F.3d 1362, 1367–68 (Fed. Cir. 2002). Where the PTO has not, it is presumed to have acted correctly. Consistent with these principles, and its prior practice, the Court applies the clear and convincing evidence standard to prosecution laches when raised as a complete defense to patent infringement.

[CL 14] As discussed below, the Court finds that Samsung has failed to meet its burden on at least the first element of laches: "that the patentee's delay in prosecution was unreasonable and inexcusable under the totality of the circumstances." *See Hyatt*, 998 F.3d at 1360.

[CL 15] Whether an applicant's delay is unreasonable is a fact-intensive inquiry that depends on the specific circumstances. *Id.* at 1366–67. Determinations of unreasonable delay are not limited to the specific patent application in question; rather, "an examination of the totality of the circumstances, including the prosecution history of all of a series of related patents and overall delay in issuing claims, may trigger laches." *Id.* at 1362; *Symbol Techs., Inc. v. Lemelson Med., Educ. & Rsch. Found., LP*, 422 F.3d 1378, 1385 (Fed. Cir. 2005) ("*Symbol II*").

[CL 16] In *Symbol II*, the Federal Circuit gave non-exclusive examples of reasonable and unreasonable delays. Examples of reasonable delays include (i) filing a divisional application in response to a restriction requirement—even immediately before issuance of the parent application; (ii) refiling an application to present new evidence of an invention's unexpected advantages; and (iii) refiling an application to add subject matter to attempt to support broader claims as the development of an invention progresses. *Symbol II*, 422 F.3d at 1385; *Hyatt*, 998 F.3d at 1361–62. The Federal Circuit noted that an applicant may refile an application for other reasons, "provided that such refiling is not unduly successive or repetitive." *Symbol II*, 422 F.3d at 1385. In contrast, the court in *Symbol II* stated, "refiling an application solely containing previously-allowed claims for the business purpose of delaying their issuance can be considered an abuse of the patent system." *Symbol II*, 422 F.3d at 1385.

[CL 17] There are no "firm guidelines" for when laches is triggered, and the determination is left to the district court's careful consideration as a matter of equity. *Symbol II*, 422 F.3d at 1385. Yet, the Federal Circuit has found instructive two prior Supreme Court cases

finding "patents unenforceable based on eight- and nine-year prosecution delays." *Hyatt*, 998 F.3d at 1367 (citing *Woodbridge v. U.S.*, 263 U.S. 50, 53 (1923) (nine-and-a-half-year delay); *Webster Elec. Co. v. Splitdorf Elec. Co.*, 264 U.S. 463. 465 (1924) (eight-year delay)); *see also Bogese*, 303 F.3d at 1369 (eight-year delay); *Symbol II*, 422 F.3d at 1385 (citing *Woodbridge* and *Webster*).

[CL 18] This Court recently found that prosecution laches applied in a case where the patentee "sought 30 to 50 years of patent protection and it obtained exactly that." *PMC*, 552 F. Supp. 3d at 689. In *PMC*, the Court noted that the asserted "claims will expire 34 years after the application was filed, 42 years after the 1987 specification, and 48 years after the 1981 parent application." *Id.* The Court concluded that "[d]elays of this magnitude did not occur by accident and do not occur when an applicant reasonably pursues prosecution." *Id.*

[CL 19] In this case, Netlist's prosecution of the '918 and '054 Patent claims—including its decision of when and how to prosecute disclosed inventions and their embodiments, such as those directed to hybrid memory and those that are not—does not amount to an "unreasonable and unexplained delay in prosecution that constitutes an egregious misuse of the statutory patent system under the totality of the circumstances" so as to warrant a finding of prosecution laches. *See Cancer Rsch.*, 625 F.3d at 728–29.

[CL 20] Netlist's prosecution of the '918 and '054 Patent family is different from the aforementioned cases where prosecution laches was found. Unlike the patentees in *Hyatt* and *PMC*, for example, Netlist did not bulk-file hundreds of patent applications with hundreds of thousands of claims to "unduly increase[] the administrative burden on the PTO" in an effort to artificially inflate the life of its patents. *Hyatt*, 998 F.3d at 1370; *PMC*, 552 F. Supp. 3d at 687. The '918 and '054 Patents are not submarine patents that have "been in the patent office for an extended period of time—intentionally or otherwise." *PMC*, 552 F. Supp. 3d at 671 (internal

quotations omitted); [FF 28]–[FF 46]. To the contrary, Netlist sought, and was granted, expedited prosecution for the '918 and '054 Patents, which resulted in issuance just over a year after Netlist filed its applications. [FF 42].

[CL 21] The prosecution history of the '918 and '054 Patent family further indicates that Netlist showed at least some reasonable diligence in prosecuting each of the patent applications that arose from the disclosure set forth in the '918 and '054 Patent family specification from the time Netlist first filed its initial application in 2008. [FF 28]–[FF 43]. Samsung does not point to any "unexplained gap" in the prosecution history of the '918 and '054 Patent family because Netlist continuously filed patent applications between 2008 to the present day—i.e., Netlist was not "sitting on its hands." *Id.*; *SynQor*, 2011 WL 2729214, at *6.

[CL 22] Samsung's argument that Netlist improperly expanded the scope of its applications in 2019, which led to the '918 and '054 Patents covering products beyond hybrid memory is unavailing. The jury, in finding Netlist's patents valid and infringed by Samsung's DDR5 products, has rejected Samsung's lack of written description arguments. (Dkt. 479 at 5.) This Court is bound by jury's fact finding in making determinations of Samsung's equitable defenses as to overlapping factual issues. *HTC Corp. v. Telefonaktiebolaget LM Ericsson*, 407 F. Supp. 3d 631, 635–36 (E.D. Tex. 2019), *aff'd*, 12 F.4th 476 (5th Cir. 2021) ("Where there are overlapping factual issues that relate to a claim tried to a jury and a claim to be resolved by the court, the court must conduct the jury proceeding first and defer to the jury's finding on any overlapping factual issues." (quoting *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500, 510 (1959); *Thermo-Stitch, Inc. v. Chemi-Cord Processing Corp.*, 294 F.2d 486, 490 (5th Cir. 1961))). Thus, Samsung cannot rely on the change of direction of the claims from hybrid technology to non-hybrid technology as basis to show any alleged delay in the prosecution of the '918 and '054

patents was unreasonable. *See Seagen*, 2022 WL 2789901, at *6 (prosecution laches based on a "position that a reasonable patent applicant would view the invention of the [asserted] Patent as limited to [one particular embodiment]" fails where that position is inconsistent with the jury's findings regarding written description).

[CL 23] Samsung's argument that Netlist's prosecution of the '918 and '054 Patent claims unreasonably followed the discussions of DDR5 PMIC specifications in JEDEC is similarly unavailing. The Federal Circuit and courts in this District have found that "[t]here is nothing unusual or improper about drafting claims to cover a competitor's product, as long as there is a basis in the pending application," even if that claim has never appeared before in the family. Seagen, 2022 WL 2789901, at *7 (quoting *SynQor*, 2011 WL 2729214, at *7); *see also PIN/NIP, Inc. v. Platte Chem. Co.*, 304 F.3d 1235, 1247 (Fed. Cir. 2002) ("[I]t is legitimate to amend claims or add claims to a patent application purposefully to encompass devices or processes of others.") Similarly, here, there was nothing atypical or unreasonable in Netlist filing claims directed towards emerging DDR5 technology.

[CL 24] Samsung relies heavily on an alleged 13 to 14-year gap between the filing of the priority application and the issuance of the '918 and '054 Patent claims. (*See e.g.*, Dkt. No. 509 at 5–7; Dkt. No. 537 at 248:17–249:21 (Milton).) However, prosecution laches is not simply a time-counting exercise. *See* [CL 15]–[CL 18]; *see also Seagen*, 2022 WL 2789901, at *7. The Court is tasked with conducting an analysis of Netlist's prosecution conduct by evaluating the totality of the circumstances. *Hyatt*, 998 F.3d at 1360. In performing that analysis, the Court declines to find that Netlist's "delay in prosecution was unreasonable and inexcusable under the totality of the circumstances." Importantly, Netlist has done nothing to extend its patent term. [FF 42]. Use of the patent prosecution process to extend the patent term is an important commonality

amongst cases finding prosecution laches. [CL 16]–[CL 18]. However, Samsung has not shown that Netlist took some action to extend the term of the patents at issue. Nor has Samsung shown that Netlist improperly delayed the prosecution of patents in the family. Rather, Netlist sought expedited review of at least the '918 and '054 Patents. Further, Samsung's own expert acknowledged that the practice of pursuing continuation applications was acceptable, [FF 53], and the jury has already rejected Samsung's lack of written description argument. [FF 55].

[CL 25] The Court finds that Samsung has failed to establish, by clear and convincing evidence, "that the patentee's delay in prosecution was unreasonable and inexcusable under the totality of the circumstances." Accordingly, the first element of prosecution laches is not met, so the Court need not address the second element.

C. Unclean Hands

[CL 26] Unclean hands applies when the misconduct of "one coming for relief has immediate and necessary relation to the equity that he seeks in respect of the matter in litigation." *Keystone Driller Co. v. Gen. Excavator Co.*, 290 U.S. 240, 245 (1933). It "necessarily gives wide range to the equity court's use of discretion in refusing to aid the unclean litigant." *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 815 (1945). "Any one of these acts—lying, unethical business conduct, or litigation misconduct—would be sufficient to invoke the doctrine of unclean hands." *Gilead Scis., Inc. v. Merck & Co, Inc.*, No. 13-cv-04057, 2016 WL 3143943, at *27 (N.D. Cal. June 6, 2016), *aff'd*, 888 F.3d 1231 (Fed. Cir. 2018)

[CL 27] A party asserting an unclean hands defense "bears the burden of proving by clear and convincing evidence that [the patent holder] acted with unclean hands." *In re Omeprazole Patent Litig.*, 483 F.3d 1364, 1374 (Fed. Cir. 2007). This defense is "reserved for extreme circumstances." *Erfindergemeinschaft UroPep GbR v. Eli Lilly & Co.*, 2017 WL 275465, at *7 (E.D. Tex. Jan. 20, 2017). Examples of such include a showing that the patent holder has

engaged in "egregious misconduct," such as "perjury," "suppression of evidence," "manufacture . . . of evidence," or "bribery." *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1293 (Fed. Cir. 2011); *see also Erfindergemeinschaft*, 2017 WL 275465, at *7 ("[T]he defendant 'must show that the patentee conducted itself as to shock the moral sensibilities of the judge, or . . . that the patentee's conduct was offensive to the dictates of natural justice.'"). Further, the alleged misconduct must have an "immediate and necessary relation" to the patents-in-suit, i.e., it must "have enhanced the claimant's legal position as to either the creation or enforcement of the legal right at issue." *Gilead Scis., Inc. v. Merck & Co.*, 888 F.3d 1231, 1239-40 (Fed. Cir. 2018).

[CL 28] *Gilead* provides an illustrative example of the sort of egregious conduct that constitutes unclean hands. There, the patentee deliberately "violat[ed] a clear 'firewall'" agreement when it improperly used information that one of its scientists had obtained from another company to file narrowed patent claims. *Id.* at 1240. This misconduct had the effect of "expediting patent issuance and for lowering certain invalidity risks." *Id.* at 1241. At deposition, this scientist deliberately lied about his participation in the call and then gave additional "intentionally false" testimony both at deposition and at trial in support of the patentee's validity positions. *Id.* at 1244. Because the scientist's violation of the firewall played a "significant role" (*id.* at 1243) in the patentee's acquisition of the patents at issue and his subsequent false testimony had "significant potential to give [the patentee] an advantage in the litigation," the court concluded that the patentee had acted with unclean hands. *Id.* at 1247.

[CL 29] An unclean hands defense further requires proof that the offending conduct materially prejudiced a party's ability to defend itself. *See Midwestern Cattle Mktg., L.L.C. v. Legend Bank, N.A.*, 800 Fed. App'x 239, 246 (5th Cir. 2020) ("[T]he unclean hands defense is inapplicable altogether where the plaintiff's sins do not affect or prejudice the defendant.")

(quoting *Bank of Saipan v. CNG Fin. Corp.*, 380 F.3d 836, 842 (5th Cir. 2004)); *Republic Molding Corp. v. B.W. Photo Utilities*, 319 F.2d 347, 349–50 (9th Cir. 1963) (in applying the unclean hands defense, "the extent of actual harm caused by the conduct in question" is "a highly relevant consideration"); *PenneCom B.V. v. Merrill Lynch & Co., Inc.*, 372 F.3d 488, 493 (2d Cir. 2004) (unclean hands defense requires proof that the plaintiff "has injured the party attempting to invoke the doctrine").

[CL 30] Samsung's unclean hands defense is based on Netlist's disclosure on its change in position, which Netlist contends occurred during fact discovery (*see* [FF 73]–[FF 74]), and which Samsung contends occurred shortly before trial in Netlist's briefing on its motions *in limine* (*see* [FF 76]).

[CL 31] Federal Rule of Civil Procedure 26(e) sets out the obligation for supplementation that must occur when a party learns that information in an interrogatory is incomplete or incorrect:

> A party who has made a disclosure under Rule 26(a) —or who has responded to an interrogatory, request for production, or request for admission—must supplement or correct its disclosure or response:
>
> (A) in a timely manner if the party learns that in some material respect the disclosure or response is incomplete or incorrect, and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing; . . . .

Fed. R. Civ. P. 26(e)(1)(A).

[CL 32] In this case, to the extent Netlist changed its position regarding the essentiality of the '339, '918, and '054 Patents, the Court does not find that such change in position constitutes litigation misconduct. As discussed in section I.D above, there was at least some factual basis for Netlist to allege that the patents are not standard essential based on the testimony of Samsung's technical witnesses. [FF 80]–[FF 92]. Netlist took the initial position that the '339, '918, and '054

Patents were standards essential, and as of November 21, 2022, Netlist still represented to Samsung that Netlist's asserted claims of the patents were "[E]ssential [P]atent [C]laims" as defined by JEDEC manual No. 21T, Section 8.2.1. [FF 63]. However, Netlist thereafter supplemented its relevant interrogatory response to state "[a]s to whether there's a theoretical way of implementing the standards without using Netlist patents, that is irrelevant in this case because the objective evidence demonstrates that Samsung infringes." [FF 64]. Although cryptic, Netlist's disclosure at least conveys the message that it believed Samsung's products infringed, without reliance on a standards-based shortcut to prove infringement. Samsung thus proceeded at its own risk by assuming that Netlist was still asserting a standards-based theory of infringement.

[CL 33] Netlist's actions in this case, even if involving "underhanded" conduct as alleged by Samsung, are not the kind of egregious misconduct for which courts have found unclean hands, nor do they shock the Court's moral sensibilities as is required to find unclean hands. Further, Samsung has not shown by clear and convincing evidence that Netlist's actions have an immediate and necessary relation to Netlist's infringement claims for the '339, '918, and '054 patents.

[CL 34] As the Federal Circuit explained in *Gilead*:

> The Supreme Court has articulated the governing legal standard. In *Keystone Driller Co. v. General Excavator Co.*, the Court explained that a determination of unclean hands may be reached when 'misconduct' of a party seeking relief 'has immediate and necessary relation to the equity that he seeks in respect of the matter in litigation," i.e., 'for such violations of conscience as in some measure affect the equitable relations between the parties in respect of something brought before the court.' 290 U.S. 240, 245, 54 S.Ct. 146, 78 L.Ed. 293 (1933). In *Precision Instrument Manufacturing Co. v. Automotive Maintenance Machinery Co.*, the Court stated that the doctrine 'closes the doors of a court of equity to one tainted with inequitableness or bad faith relative to the matter in which he seeks relief, however improper may have been the behavior of the defendant,' and requires that claimants 'have acted fairly and

> without fraud or deceit as to the controversy in issue.' 324 U.S. 806, 814–15, 65 S.Ct. 993, 89 L.Ed. 1381 (1945).

Gilead, 888 F.3d at 1239–40.

[CL 35] The "immediate and necessary relation" standard requires that the alleged misconduct must "have enhanced the claimant's legal position as to either the creation or enforcement of the legal rights at issue." *Gilead*, 888 F.3d at 1240.

[CL 36] In support of its unclean hands argument, Samsung has pointed to certain evidence and defenses it developed for trial but was prevented from presenting due to Netlist's misrepresentation that it was pursuing a standards-based infringement theory. [FF 93]–[FF 95]. The Court does not find that Samsung has presented clear and convincing evidence supporting the assertion that Netlist's misrepresentation "has immediate and necessary relation to the equity that [Netlist] seeks in respect of the matter in litigation." *See Gilead*, 889 F.3d at 1239.

[CL 37] In sum, the Court does not find that the doctrine of unclean hands bars Netlist's infringement claims for the '339, '918, and '054 Patents.

The parties are directed to jointly prepare a redacted version of this Order for public viewing and to file the same on the Court's docket as an attachment to a Notice of Redaction within five (5) business days of this Order.

So ORDERED and SIGNED this 11th day of August, 2023.

RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE